# A NEW SPECIES OF CYMODUSA (CYMODUSA) HOLMGREN, [1859] (HYMENOPTERA: ICHNEUMONIDAE: CAMPOPLEGINAE) FROM TURKEY<sup>1</sup>

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ABSTRACT: A new species of the genus *Cymodusa* (*Cymodusa*) Holmgren, [1859] from Turkey is described and figured. It is distinguished from the similar *C.* (*Cymodusa*) oculator Dbar, 1985 by elongated basal area and area superomedia of propodeum, moderately narrowed behind head, developed clypeal fovea, no intercepted nervellus and coloration of the body.

KEY WORDS: Cymodusa (Cymodusa), Campopleginae, Ichneumonidae, Hymenoptera, new species, Turkey

The genus *Cymodusa* (*Cymodusa*) Holmgren, [1859] is a moderately large genus with about 38 species in Holarctic, Oriental and Neotropic regions (Yu and Horstmann, 1997). Usually the species occur among grasses and parasitize caterpillars (Lepidoptera). A key of Campopleginae genera is given by Townes (1970). Palaearctic species was reviewed and keyed by Dbar (1984 and 1985). In Western Palaearctic region there are 18 species (Yu et al., 2005).

Until now only two species was known from Turkey (Kolarov and Beyarslan, 1995). After examining *Cymodusa* (*Cymodusa*) materials collected from North Eastern Turkey, a new species was found and it is described below.

## SYSTEMATIC ENTOMOLOGY

Cymodusa (Cymodusa) yildirimi sp. nov.

Female. Front wing 3.3 mm, body 4.5 mm, ovipositor sheath 1.3 mm long. Head narrowed behind eye (Fig. 1). Frons densely punctured mat. Occipital carina connected oral carina far from base of mandible. Diameter of hind ocellus 0.83 as long as the distance between ocellus and eye. Flagellum with 30 segments, postannellus 3.2 as long as wide, subapical segments square. Eyes densely hairy, swollen, both front and hind margins concave. Front margins of eyes strongly convergent down (Fig. 2). Maximal distance between them 2.4 as long as minimal distance. Clypeus separated from face, with regularly curved front margin. Clypeal foveae touching eyes. Malar space 0.14 as long as basal width of mandible. Oral carina high, lamelliform.

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Mesonotum moderately dense punctured on coriaceous background, notaulus weak. Meso- and metapleurum coriaceous, not punctured. Prepectal carina strong connected front margin of mesopleurum on its middle. Mesosternum excavated longitudinally along mesosternal suture, more deeply from behind. Legs moderately slender, hind femur 5.0 as long as wide. Correlation between hind tarsal segments as 35:17:11:6:7. Tarsal claws pectinated basally. Front wing with petiolate areolet (Fig. 3). Second radius 1.53 as long as first one. Second recurrent vein (2mCu) connected with areolet in front of its middle. Nervulus interstitial, nervellus vertical, not intercepted, discoidella absent (Fig. 4). Propodeum well areolated, with area basalis elongated separated from areola (Fig. 5). Area superomedia hexagonal, open from behind, costula present. Combined area basalis and area superomedia 1.57 as long as petiolar area.

First metasomal tergite without dorsolateral carinae, glymma absent. Second metasomal tergite 1.6 as long as wide apically, sculptured. Sixth and seventh metasomal tergites deeply excavated apically (Fig. 6). Ovipositor sheath as long as hind tibia.

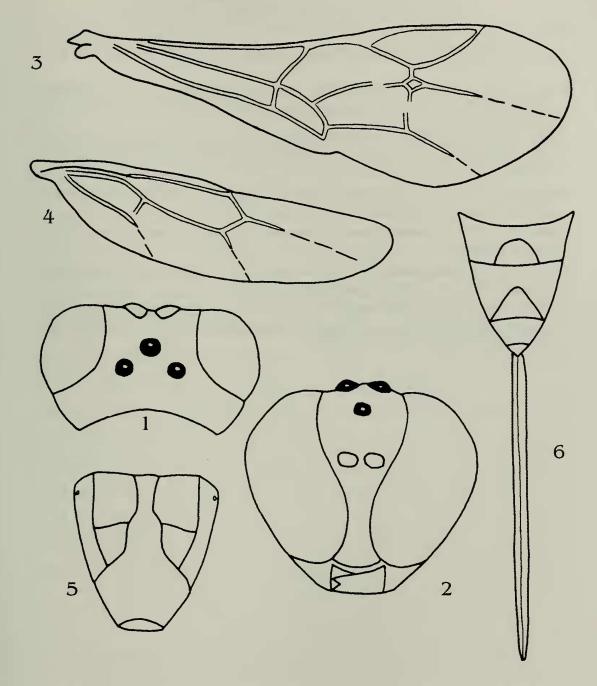
Black; palpi, mandible except teeth and tegula yellow; legs except hind coxa and first hind trochanter reddish; middle coxa, base of hind femur, hind tibia apically and subbasally brownish; second and third metasomal sternites yellowish; first – third metasomal tergites with reddish apical band.

Male unknown.

The newly described species belongs to the *australis* species group by the short malar space, strongly convergent down eyes orbitae, long ovipositor and strongly excavated apically sixth and seventh metasomal tergites. It is distinguished from the similar *Cymodusa* (*Cymodusa*) oculator Dbar, 1985 by elongated basal area and area superomedia of propodeum, moderately narrowed behind head, developed clypeal fovea, not intercepted nervellus and coloration of the body.

**Material Examined:** Holotype female, Turkey, Erzurum, 1850 m, 30.07. 1998, leg E. Yildirim, preserved in the collection of Plovdiv University; Paratype female, Turkey, Erzurum, Palandoken, 2300 m, 7.07.1996, leg. S. Tosun, preserved in the collection of Atatürk University, Erzurum.

**Etymology:** The species is dedicated to Dr. E. Yildirim, who collected one of the type specimens and for his investigations on Hymenoptera.



Figures 1-6. *Cymodusa* (*Cymodusa*) *yildirimi* sp. nov. 1. head from above; 2. face; 3. front wing; 4. hind wing; 5. propodeum; 6. last metasomal tergites, dorsal view (x 40).

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### LITERATURE CITED

- **Dbar, R. S.** 1984. Revision of the Palaearctic species of the genus *Cymodusa* Holmgren (Hymenoptera, Ichneumonidae). Entomologicheskoye Obozreniye 63(4):802-812. [Entomological Review 63(4):127-138]
- **Dbar, R. S.** 1985. Revision of the Palaearctic species of *Cymodusa* Holmgren (Hymenoptera, Ichneumonidae). II. Entomologicheskoye Obozreniye 64(3):588-600. [Entomological Review 65(1):5-17]
- **Kolarov, J. and A. Beyarslan.** 1995. New and little known Turkish Campopleginae (Hymenoptera, Ichneumonidae). *In*, Third National Scientific Conference of Entomology, 18-20 September 1995. Sofia, Bulgaria. pp. 18-21.
- **Holmgren, A. E.** 1859. Conspectus generum Ophionidum Sueciae. Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar.15(1858):321-330.
- **Townes, H.** 1970. The Genera of Ichneumonidae. Part 3. Memoirs of the American Entomological Institute 13. 307 pp.
- Yu, D. S. and K. Horstmann. 1997. A Catalogue of World Ichneumonidae (Hymenoptera). Memoirs of the American Entomological Institute No. 58 (1/2) 1558 pp.
- Yu, D. S., C. van Achterberg (Braconidae), and K. Horstmann (Ichneumonidae). 2005. World Ichneumonoidea 2004 Taxonomy, Biology, Morphology and Distribution. DVD/CD. Taxapad. Vancouver, Canada. www.taxapad.com.